

Roll Grade Descriptions

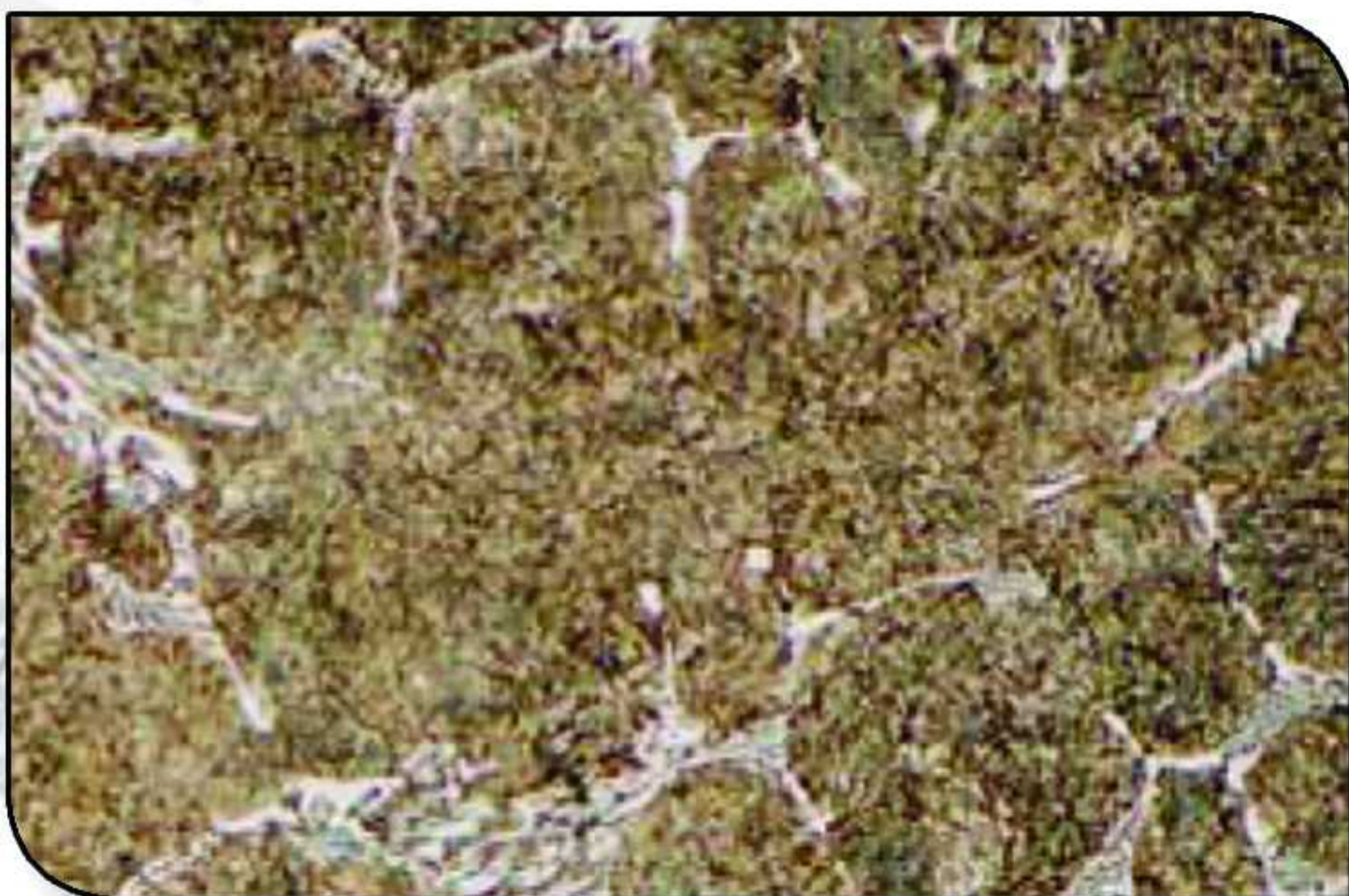
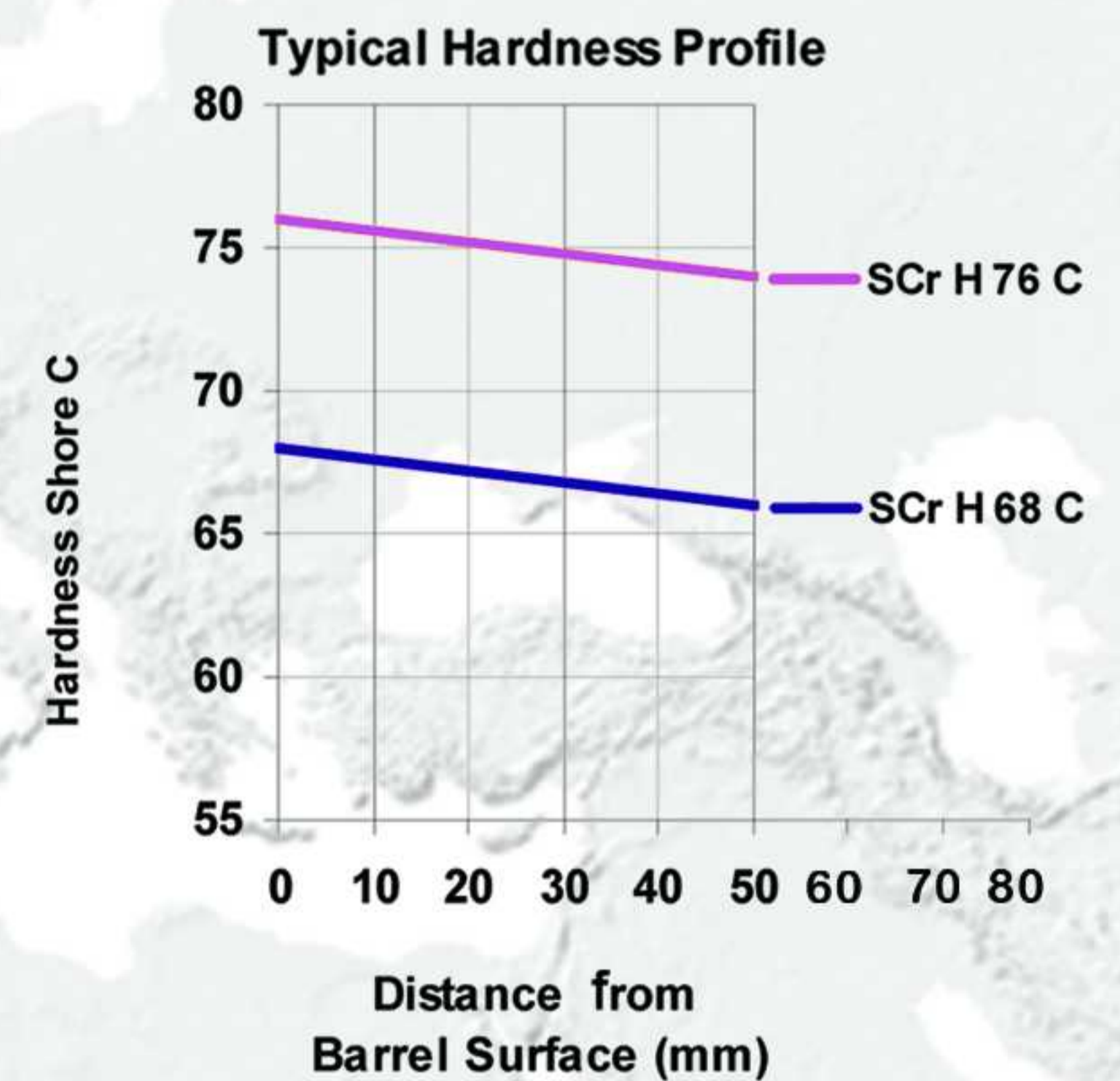
SCr

High Chromium Steel Rolls Enhanced: High Chromium Steel Rolls

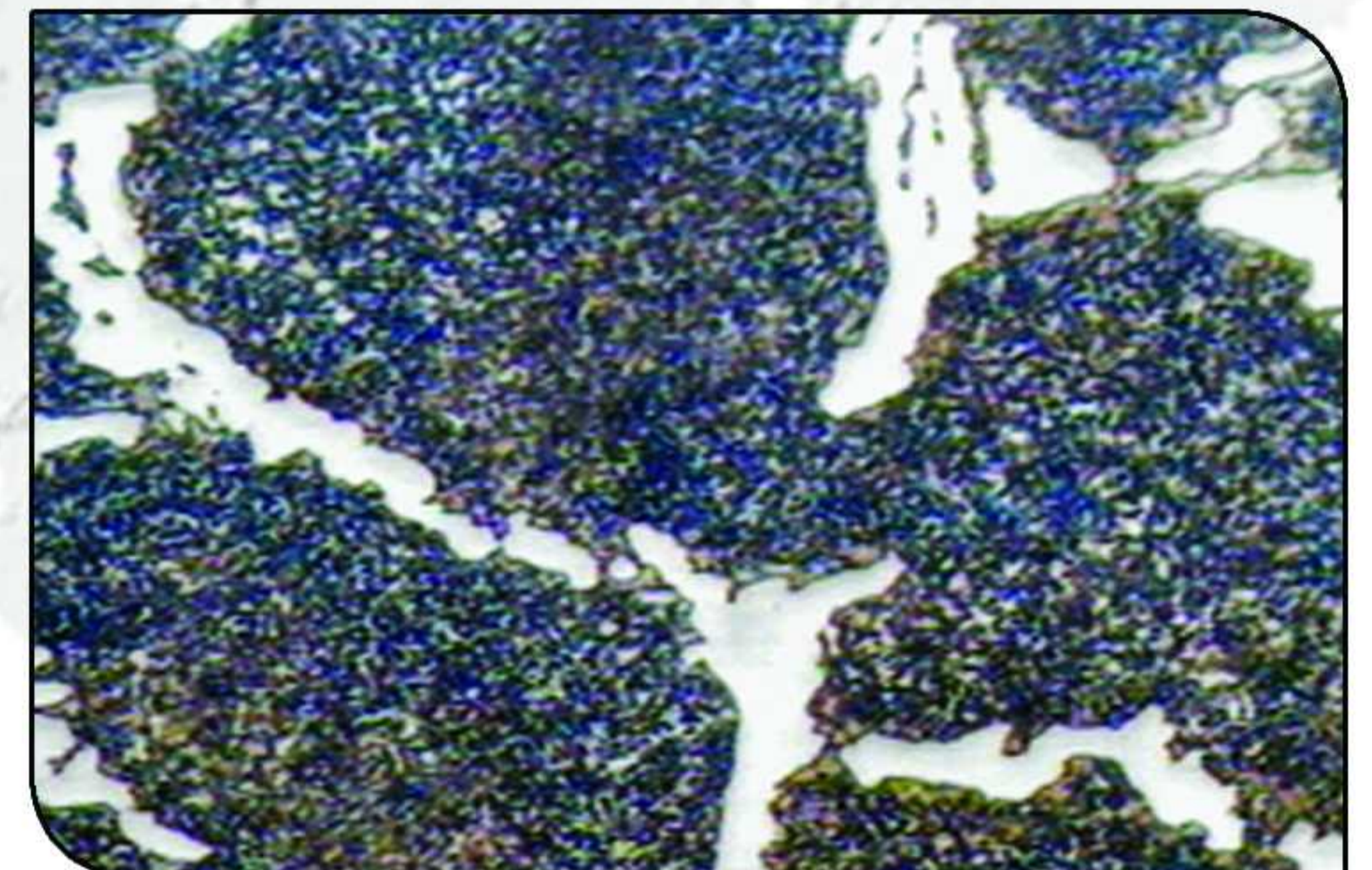
High chromium steel are similar to high Cr cast iron with lower carbon content of 1.0-1.8%. The lower carbon grades are true steel with no eutectic carbides and higher carbon grades have some eutectic carbides.

Hi chromium steel rolls are used in roughing stands of HSMs, Steckel Mills and some early finishing stands of Hot Strip Mills.

Enhanced High Chromium Steel Rolls are alloyed with Nb, V and W to improve the wear resistance.



SCrH72C Tempered Martensite with Secondary Chromium Carbides (x100)



SCrH72C Tempered Martensite with Secondary Chromium Carbides (x400)

Chemical Composition and Mechanical Properties of High Chromium Steel Rolls

| Roll Grade | Barrels Hardness (Shc) | C (%) | Si (%) | Mn (%) | Cr (%) | Ni (%) | Mo (%) | V+Nb (%) | Composition hardness and Properties of core material |
|------------|------------------------|---------|---------|---------|--------|---------|---------|----------|--|
| SCr H68C | 68 | 1.0-1.8 | 0.6-1.3 | 0.5-1.5 | 10-13 | 0.5-1.5 | 0.7-1.5 | 0.2-0.5 | See Page A |
| SCr H 72C | 72 | 1.0-1.8 | 0.6-1.3 | 0.5-1.5 | 10-13 | 0.5-1.5 | 0.7-1.5 | 0.2-0.5 | See Page A |
| SCr H 76C | 76 | 1.0-1.8 | 0.6-1.3 | 0.5-1.5 | 10-13 | 0.8-1.8 | 0.7-1.5 | 0.2-0.5 | See Page A |
| SCr AH 68C | 68 | 1.0-1.8 | 0.6-1.3 | 0.5-1.5 | 10-13 | 0.8-1.8 | 0.7-1.5 | 0.5-1.5 | See Page A |
| SCr AH 72C | 72 | 1.0-1.8 | 0.6-1.3 | 0.5-1.5 | 10-13 | 0.8-1.8 | 0.7-1.5 | 0.5-1.5 | See Page A |
| SCr AH76C | 76 | 1.0-1.8 | 0.6-1.3 | 0.5-1.5 | 10-13 | 0.8-1.8 | 1.0-1.7 | 0.5-1.5 | See Page A |

Note: Other roll grades, not specified in the table can be produced on request. Cores for compound rolls can be produced on request with Grey, Compact or Nodular cast iron.

